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AUTHOR Crowl, Thomas K.; Alsworth, Philip L.
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ABSTRACT

An experimental teacher preparation program was established whose major distinguishing feature consisted of increasing the amount of time spent by college juniors in an elementary school classroom. The education course met at the elementary school instead of at the college. This study attempted to provide empirical data regarding the effect of the program on students' attitudes toward teacher education. For more than half of the 12 students in the experimental program this course was the first education course they had taken; another quarter had taken or were taking an additional four credits in education. The control group of 25 students had begun their teacher preparations the previous semester. A questionnaire was administered to the participants in this program to determine their positive or negative attitudes toward the teacher preparation program. The results showed that although the experimental group had a significantly more positive attitude toward its program than did the control group, both groups had positive attitudes. Results also indicated that while a school-based program may be a step in the right direction, simply providing increased classroom exposure to students early in their education work is not in itself sufficient to meet students' needs completely, since many students felt there was room for improvement in teacher education. (JMF)

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School-Based Teacher Education: An Empirical Investigation[1]

Thomas K. Crowl and Philip L. Alsworth
Richmond College
City University of New York

In his analysis of teacher education in the United States, Conant (1963) pointed out that there are many things that a prospective elementary school teacher can learn only in the elementary school classroom. In addition, Sarason and his associates (1962) have emphasized the desirability not only of placing prospective teachers in the classroom but of requiring such experience as soon as students decide to become teachers. Such a position suggests that students become involved in the schools long before the time that student teaching typically takes place. Acknowledging that most teacher education programs stress the importance of having prospective teachers involved with children, Combs (1965) nevertheless has noted that, "our effort has been involved with teaching our students about teaching instead of helping them become teachers" (p. 28). Students need to experience firsthand the world of teaching. Among his suggestions for improving teacher education, Combs has recommended that prospective teachers have as many contacts with regular teachers as possible.

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Students themselves have joined in the plea for more experience in schools. For example, in a position paper of priorities, the Student National Education Association called attention to "the need of education students for early and continuous direct experience with children in schools" (Allen, 1971, p. 226). And indeed the call for more direct experience has not gone unheeded. In his review of the state of the art of teacher education, Stiles (1971) reported an increase in provisions for practical experience, and McIntosh (1971) has advocated a clinical approach as one way of shifting the locus of teacher education from the university to the school setting.

Various teacher education programs have been described recently in which the school plays a major role in the education of prospective teachers. (See, for example, Greta, 1971; Knight & Wayne, 1970; Marso, 1971; Monroe & Talmage, 1970.) With minor exceptions (Watt, Gross, & Devine, 1971), such programs have typically combined course work at the university with field experience in the schools. Evidence, usually of an anecdotal nature, suggests that teacher education programs involving experiences in the schools are successful. Monroe and Talmage (1970), however, have pointed out the need for gathering empirical evidence to support the furtherance of teacher education programs based on the cooperation of the schools and the university.

In many applied situations it is difficult to gather empirical evidence in a rigorous manner because of the countless, often uncontrollable, variables that may affect what takes place. The current investigation, however, attempted to provide empirical data regarding one of the effects of an experimental, school-based teacher education program, namely the effect on students' attitudes toward teacher education.

Experimental Teacher Preparation Program

An experimental teacher preparation program was established whose major distinguishing feature consisted of increasing the amount of time spent by college juniors in an elementary school. Each student served as an assistant to a teacher in classrooms at the kindergarten, first, or second grade level. A unique aspect of the program was that students also met regularly with college professors at the school for a four-credit education course, instead of at the college, where the course is usually held for students participating in teacher preparation programs. For more than half of the experimental group this course was the first and only education course they had taken; another quarter of the students had taken or were currently taking an additional four credits in education.

The basic rationale underlying the experimental program was to add the critical dimension of realism to the students' preparation for teaching. It was believed that placing students in the realistic context of an elementary school, particularly at a time when they were just embarking on their professional study of education, would lead to a positive, receptive attitude toward teacher preparation and ultimately increase their competency as student teachers and later as beginning teachers in the schools.

Procedure

Experimental and Control Groups

All of the students in this study were women. The experimental group consisted of 12 students, most of whom were in their first semester of teacher education. The control group consisted of 25 students, most of whom had begun their work in education the previous semester. Therefore, all students were just beginning their teacher preparation programs, but students in the control group had generally already taken one education

course whereas students in the experimental group had not.

No criterion other than willingness to participate was used in selecting the experimental group. Academically the two groups appeared comparable inasmuch as the mean entering grade point average of the control group was 2.60 while that of the experimental group was 2.61. (Grade point averages were based on a scale where 4.00 = A, 3.00 = B, etc.) The two groups also exhibited a marked degree of similarity on such variables as sex, age, ethnic group, marital status, academic major, number of credits being taken, and number of hours spent in outside employment.

Students in the control group met at the college one day per week for a total of ten weeks, each meeting lasting approximately four and one-half hours. In addition, students spent one full day per week in an elementary school for a period of four weeks. While at the college, students attended an education course dealing with language arts, music, and social studies. Three professors taught this course jointly, each professor assuming major responsibility for one of the three content areas. Student enrollment in the course was 27.

Students in the experimental group met two mornings a week for a total of 14 weeks at an elementary school for approximately three hours per session in an education course dealing with language arts and music. Two professors taught the course jointly, each professor assuming major responsibility for one of the two content areas. Student enrollment in the course was 12. The two professors who taught the experimental group also formed part of the team which taught the control group. The course objectives in language arts and music were identical for both groups of students.

In summary, the major differences between the two groups were as

follows: the experimental group spent approximately one and one-half hours more per week engaged in activities related to their education course; spent approximately 10 more weeks in an elementary school; were taking an education course having about one-half the control group's class size; were attending the education course at the school rather than at the college; studied two rather than three content areas; were taught by two rather than three professors; participated in the program on a voluntary basis; and had spent one semester less at the college. The dissimilarities above should not distort the nature of the two groups, for despite their differences, the groups nevertheless exhibited many marked similarities. Both groups were exceedingly similar with respect to biographical data; had virtually identical levels of previous academic performance as measured by entering grade point average; were enrolled in quite similar education courses; and were taught by an identical pair of professors whose academic goals for both student groups were the same.

Student Attitudes

A questionnaire consisting of 31 Likert-type scales was designed to measure student attitudes toward teacher preparation programs. See Table 1. Statements were selected which were felt to be likely to elicit different reactions from students as a function of whether the student held a generally positive or negative attitude toward her teacher preparation program. Sixteen statements were worded in such a way that a positive response was believed to be associated with a favorable attitude. For the remaining 15 statements, a negative response was believed to be associated with a favorable attitude. The final arrangement of the statements on the questionnaire was determined by a process of random selection.

Administration of the Questionnaire

The questionnaire was distributed to each group during a regularly scheduled meeting of the education course. Administration was carried out separately for the control group and for the experimental group. The two professors who taught both groups were present during the administration, but participated in no way. The maintenance of confidentiality of students' responses was especially stressed. Students were urged to respond as honestly as possible and to base their responses on their own actual experience, not on hearsay. No student was forced to complete the questionnaire, but no student present at either administration refused.

Completed questionnaires were obtained from 25 students in the control group and 12 students in the experimental group. In the experimental group only 10 students were present at the time the questionnaire was administered. Since the experimental group was so small, blank questionnaires were left with the professors to give to the two absent students.

Results

The mean total attitude score toward teacher preparation for the control group was 6.40 (SD = 12.40) and for the experimental group, 28.28 (SD = 12.48). A comparison of the means showed the experimental group had a significantly more positive attitude toward their teacher preparation program than did the control group ($t = 4.49$, $p < .001$).

Split-half reliability coefficients were computed for the experimental and control groups separately as well as in combination. For the experimental group, the reliability coefficient was .72 (.84, when corrected for test length). For the control group, the reliability coefficient was .54 (.70, when corrected for test length). Combining both groups yielded a reliability coefficient of .72 (.84, when corrected for test length).

Questionnaires from both the experimental and control groups were combined and ranked from highest to lowest in terms of total score. Using the 10 questionnaires with the highest and the 10 with the lowest scores (i.e., the top and bottom 27%), the 31 statements in the questionnaire were analyzed by means of a series of *t* tests as suggested by Edwards (1957). The mean score of the high-scoring group was significantly higher than that of the low-scoring group on 22 of the 31 statements. On no statement was the mean score of the high-scoring group lower than that of the low-scoring group.

Statements differentiating between the high- and low-scoring groups at the .001 level dealt with the applicability of education course work to practical situations and professor-student interaction. Statements significant at the .01 level dealt with the inherent interest of the content of education courses and student attitudes toward such courses. Statements significant at the .05 level dealt with knowledge of the teaching act and feelings about being a teacher. Statements yielding no significant differences dealt with the status of education as a profession and the place of education courses in teacher preparation.

Discussion

Although the experimental and control groups exhibited many characteristics in common, it is not known if initial attitudes of the groups toward teacher education were truly comparable. Consequently, one must exercise caution in inferring a causal relationship between the type of program and students' attitudes toward teacher education. The matter is further complicated by the fact that the students in the control group generally had spent one additional semester taking education courses. Perhaps the less positive attitudes held by the control group were simply

a function of having spent more time in teacher education; or looking at the situation from the point of view of students in the experimental group, perhaps their more positive attitudes were a function of the novelty of beginning their work in education. Even if one is willing to accept the notion that the study has demonstrated a relationship between type of program and students' attitudes, the question still remains as to precisely what it was about the experimental program that made a difference. Ostensibly, the fact that students spent more time actually working in an elementary school was the major factor. However, since the students in the experimental group knew that they were in a special program, the possibility of a Hawthorne effect presents itself. Also, the class size of the experimental group was approximately one-half that of the control group, thus permitting a greater possibility that the student would receive individual attention from professors. Indeed, two of the eight statements that differentiated the high- and low-scoring groups most significantly dealt with professors giving individual attention to and taking a personal interest in their students.

It should be noted that although the experimental group had a significantly more positive attitude toward its program than did the control group, both groups nevertheless had positive attitudes. In analyzing responses to those statements that did <u>not</u> yield significant differences between the high- and low-scoring groups, it is interesting that for most statements, both the experimental and control groups held highly similar <u>positive</u> attitudes. Only the statement, "Even if a student is not planning to teach, he could learn a lot in an education course," led to an equal distribution of positive and negative responses, regardless of group. The one statement on which both the experimental and control groups tended to

respond negatively was, "There are few changes I would make in the way I am being prepared to teach." The preponderance of negative responses to the above statement would seem to suggest that while a school-based program may be a step in the right direction, simply providing increased classroom exposure to students early in their education work is not in itself sufficient to meet students' needs completely.

Table 1

Teacher Preparation Attitude Questionnaire

	Item	P*
1.	For prospective teachers courses in education are at least as important as courses in the liberal arts.	NS
2.	Experienced teachers could learn quite a bit by taking refresher courses in education.	NS
3.	There is too much irrelevant discussion in my education classes.	.001
4.	Even if a student is not planning to teach, he could learn a lot in an education course.	NS
5.	Most education courses are too theoretical and have little relationship to real classroom problems.	.05
6.	Teaching should be regarded as a profession, not as a job.	NS
7.	I am disappointed if I am unable to attend a class meeting in an education course.	.01
8.	I have not learned enough about how to motivate children.	.01
9.	Most professors of education do not know what is happening in the schools today.	.001
10.	Practically anyone who is reasonably intelligent and likes children could be a good teacher without any special preparation.	.05
11.	Much of what I have learned in my class in music is useful.	.05
12.	Education courses are useless because "the system" prevents you from carrying out what you have learned.	.01
13.	Professors of education are at least as competent as professors in most other fields.	NS
14.	Much of what I have learned in my class in language arts is useful.	.001
15.	There are probably many aspects of teaching about which I know very little.	.05
16.	Most students in my education classes take their work seriously.	.01
17.	I have as much opportunity as I want to discuss problems of teaching with regular classroom teachers.	.05
18.	I would not want my own children to be taught by most of the students in my education classes.	NS
19.	I would major in education at Richmond if such a major were offered.	NS

Table 1 (Continued)

Item	p*
20. Few of the activities I engage in as a part of my teacher preparation program are worthwhile.	.05
21. I would have no desire to teach an education course.	.001
22. Much more could be learned about how to become a good teacher if there were just more time available.	NS
23. Teacher preparation at Richmond is not as good as it is at some other parts of the City University.	.01
24. Methods of preparing teachers have not changed much during the past 20 years.	.05
25. I feel I am getting sufficient opportunity to find out what teaching is all about.	.001
26. Most topics discussed in my education courses are boring.	.01
27. I get little individual attention from my education professors.	.001
28. I am glad I have decided to become a teacher.	.05
29. There are few changes I would make in the way I am being prepared to teach.	NS
30. Not enough emphasis is placed on providing prospective teachers with effective ways of teaching.	.001
31. Professors of education take a personal interest in their students.	.001

*level of significance at which the corresponding item discriminated between high- and low-scoring groups based on total attitude score. All differences are in the direction of more favorable attitudes for the high-scoring group.

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